Structure Effects on the Ionicity of Protic Ionic Liquids

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In the following, the names of all raw data files from the measurements are presented. All measurements were performed by Sarah K. Mann.

1. **Files from DSC measurements.**

**Figure 1:** (from top to bottom) *DMBA-PA.txt; DMEA-PA.txt; BA-PA.txt; EA-PA.txt; HA-PA.txt; HA-OA.txt; HA-2EHA.txt; HA-2PPA.txt; 2HA-PA.txt; 2HA-OA.txt; 2HA-2EHA.txt; 2HA-2PPA.txt; BA-Sal.txt; HA-Sal.txt; 2AH-Sal.txt;*

1. **Files from FTIR measurements.**

**Figure 2a**: *PA.csv; BA-PA.csv; EA-PA.csv*

**Figure 2b:** *PA.csv; DMBA-PA.csv; DMEA-PA.csv*

**Figure 5:** *PA.csv; DMBA-PA.csv; DMBA-PA-EtoH\_1to1.csv; DMBA-PA-H2O\_1to1.csv*

1. **Viscosity, density and conductivity measurements.**

All data recorded in *transport\_measurements.xlsx*

**Figure 3a and Table 2.** Viscosity: [BA][PA]; [EA][PA]; [DMBA][PA]; [DMEA][PA]

**Figure 3b and Table 2.** Resistance: [BA][PA]; [EA][PA]; [DMBA][PA]; [DMEA][PA]

**Figure 4a and Table 2.** Resistance, Density, Viscosity: [BA][PA]; [EA][PA]

**Figure 4b and Table 2.** Resistance, Density, Viscosity: [DMEA][PA]; [DMBA][PA]; [DMBA][PA]/EtOH; [DMBA][PA]/H2O

**Figure 6a:** Viscosity: [DMBA][PA]; [DMBA][PA]/EtOH; [DMBA][PA]/H2O

**Figure 6b:** Resistance, Density: [DMBA][PA]; [DMBA][PA]/EtOH; [DMBA][PA]/H2O

**Figure 7a and Table 3.** Viscosity: [BA][Sal]; [HA][Sal]; [2AH][Sal]

**Figure 7b and Table 3.** Resistance: [BA][Sal]; [HA][Sal]; [2AH][Sal]

**Figure 7c and Table 3.** Viscosity: [HA][Ac]; [HA][PA]; [HA][OA]; [2AH][PA]; [2AH][OA]

**Figure 7d and Table 3.** Resistance: [HA][Ac]; [HA][PA]; [HA][OA]; [2AH][PA]; [2AH][OA]

**Figure 8b and Table 3.** Resistance, Density, Viscosity: [BA][Sal]; [HA][Sal]; [2AH][Sal]

**Figure 8b and Table 3.** Resistance, Density, Viscosity: [HA][Ac]; [HA][PA]; [HA][OA]; [2AH][PA]; [2AH][OA]

1. **Files from PGSE NMR measurements.**

**Table 4:** (from top to bottom) *180410\_HA-Ac/10; 180301\_HA-PA/10; 180410\_2AH-Sa/10l; 180301\_2AH-PA/10*